Acronyms

AOS	=	Apparent Opening Size
APWA	=	American Public Works Association
BMP	=	Best Management Practice
DOE	=	Department of Ecology
EPA	=	Environmental Protection Agency
HPA	=	Hydraulic Project Approval
IPM	=	Integrated Pest Management
NGPE	=	Native Growth Protection Easement
SA	=	Surface Area
SBUH	=	Santa Barbara Urban Hydrograph
SCS	=	Soil Conservation Service
SD	=	Settling Depth
SSP	=	Stormwater Site Plan
TESC	=	Temporary Erosion and Sediment Control
TSS	=	Total Suspended Solids
WAC	=	Washington Administrative Code
WSDOT	=	Washinton State Department of Transportation

P3:HRM1

1 inch = 25.4 millimeters

1 foot = 0.3048 meters
1 yard = 0.9144 meters

1 mile = 1609 meters
1 mile = 1.609 kilometers

1 acre = 0.4047 hectare (Ha)
1 acre = 4047 square meters

1 square foot = 0.0929 sq meters
1 square yard = 0.8361 sq meters

1 cubic foot = 0.02832 cubic meters
1 cubic foot = 7.481 gallons

1 cubic yard = 0.7645 cubic meters
1 cubic yard = 27 cubic feet
1 cubic yard = 202 gallons

1 gallon = 3.785 liters
1 cubic meter = 1000 liters

1 pound = 0.4535 kilograms
1 pound/sq inch = 6.89 kilopascals

1 short ton = 2000 pounds
1 short ton = 907.18 kilograms
1 short ton = 0.9078 metric tons

1 metric ton = 2205 pounds
1 metric ton = 1000 kilograms

P3:HRM1

Glossary

Adjacent Steep Slope — A slope with a gradient of 15 percent or steeper within 500 feet of the site.

Adsorption — The adhesion of a substance to the surface of a solid or liquid; often used to extract pollutants by causing them to be attached to such adsorbents as activated carbon or silica gel. Hydrophobic, or water-repulsing adsorbents, are used to extract oil from waterways when oil spills occur. Heavy metals such as zinc and lead often adsorb onto sediment particles.

Anti-seep Collar — A device constructed around a pipe or other conduit and placed through a dam, levee, or dike for the purpose of reducing seepage losses and piping failures.

Bankfull Discharge — A flow condition where streamflow completely fills the stream channel up to the top of the bank. In undisturbed watersheds, the discharge conditions occurs on average every 1.5 to 2 years and controls the shape and form of natural channels.

Base Flood — A flood having a 1 percent chance of being equaled or exceeded in any given year. This is also referred to as the 100-year flood.

Base Flood Elevation — The water surface elevation of the base flood. It shall be referenced to the National Geodetic Vertical Datum of 1929 (NGVD).

Basin Plan — A plan and all implementing regulations and procedures including but not limited to land use management adopted by ordinance for managing surface and storm water quality and quantity management facilities and features within individual subbasins.

Best Management Practice (BMP) — Physical, structural, and/or managerial practices that, when used singly or in combination, reduce the downstream quality and quantity impacts of stormwater.

Biofiltration — The simultaneous process of filtration, infiltration, adsorption, and biological uptake of pollutants in stormwater that takes place when runoff flows over and through vegetated areas.

Biofiltration Swale — A sloped, vegetated channel or ditch that provides both conveyance and water quality treatment to stormwater runoff. It does not provide stormwater quantity control but can convey runoff to BMPs designed for that purpose.

Biological Control — A method of controlling pest organisms by means of introduced or naturally occurring predatory organisms, sterilization, the use of inhibiting hormones, or other means, rather than by mechanical or chemical means.

Bollard — A post (may or may not be removable) used to prevent vehicular access.

Buffer — The zone contiguous with a sensitive area that is required for the continued maintenance, function, and structural stability of the sensitive area. The critical functions of a riparian buffer (those associated with an aquatic system)

include shading, input of organic debris and coarse sediments, uptake of nutrients, stabilization of banks, interception of fine sediments, overflow during high water events, protection from disturbance by humans and domestic animals, maintenance of wildlife habitat, and room for variation of aquatic system boundaries over time due to hydrologic or climatic effects. The critical functions of terrestrial buffers include protection of slope stability, attenuation of surface water flows from storm water runoff and precipitation, and erosion control.

CN — Soil Conservation Service's Curve Number. This number describes the runoff characteristics of a particular type of soil.

Catchbasin — A chamber or well, usually built at the curb line of a street, for the admission of surface water to a sewer or subdrain, having at its base a sediment sump designed to retain grit and detritus below the point of overflow.

Catchline — The point where a severe slope intercepts a different, more gentle slope.

Catchment — Surface drainage area.

Channel — A feature that conveys surface water and is open to the air.

Channelization — Alteration of a stream channel by widening, deepening, straightening, cleaning, or paving certain areas to change flow characteristics.

Check Dam — Small dam constructed in a gully or other small watercourse to decrease the streamflow velocity, minimize channel scour, and promote deposition of sediment.

Clay Lens — A naturally occurring, localized area of clay which acts as an impermeable layer to runoff infiltration.

Closed Depression — An area which is low-lying and either has no, or such a limited, surface water outlet that during storm events the area acts as a retention basin.

Cohesion — The capacity of a soil to resist shearing stress, exclusive of functional resistance.

Constructed Wetland — A wetland that is created on a site that previously was not a wetland. This wetland is designed specifically to remove pollutants from stormwater runoff.

Conventional Pollutants — Contaminants (other than nutrients) such as sediment, oil, and vehicle fluids.

Conveyance — A mechanism for transporting water from one point to another, including pipes, ditches, and channels.

Conveyance System — The drainage facilities, both natural and man-made, which collect, contain, and provide for the flow of surface and stormwater from the highest points on the land down to a receiving water. The natural elements of the conveyance system include swales and small drainage courses, streams, rivers, lakes, and wetlands. The human-made elements of the conveyance system include gutters, ditches, pipes, channels, and most retention/detention facilities.

Created Wetland — A wetland that is created on a site that previously was not a wetland. This wetland is created to replace wetlands that were unavoidably destroyed during design and construction of a project. This wetland cannot be used for treatment of stormwater runoff.

Dead Storage — The permanent pool volume located below the out structure of a storage device. Dead storage provides water quality treatment but does not provide water quantity treatment.

Depression Storage — The amount of precipitation that is trapped in depressions on the surface of the ground.

Design Storm — A prescribed hyetograph and total precipitation amount (for a specific duration recurrence frequency) used to estimate runoff for a hypothetical storm of interest or concern for the purposes of analyzing existing drainage, designing new drainage facilities or assessing other impacts of a proposed project on the flow of surface water.

Detention — The storage and subsequent release of excess stormwater runoff from a site.

Detention Facility — An above or below ground facility, such as a pond or tank, that temporarily stores stormwater runoff and subsequently releases it at a slower rate than it is collected by the drainage facility system. There is little or no infiltration of stored stormwater.

Detention Time — The theoretical time required to displace the contents of a stormwater treatment facility at a given rate of discharge (volume divided by rate of discharge).

Discharge — Outflow; the flow of a stream, canal, or aquifer. One may also speak of the discharge of a canal or stream into a lake, river, or ocean. (Hydraulics) Rate of flow, specifically fluid flow; a volume of fluid passing a point per unit of time, commonly expressed as cubic feet per second, cubic meters per second, gallons per minute, gallons per day, or millions of gallons per day.

Drainage — Refers to the collection, conveyance, containment, and/or discharge of surface and storm water runoff.

Drainage Basin — A geographic and hydrologic sub-unit of a watershed.

Drainage Channel — A drainage pathway with a well-defined bed and banks indicating frequent conveyance of surface and stormwater runoff.

Drainage Course — A pathway for watershed drainage characterized by wet soil vegetation; often intermittent in flow.

Drainage Divide — The boundary between one drainage basin and another.

Drain — A buried pipe or other conduit (closed drain). A ditch (open drain) for carrying off surplus surface water or ground water.

Drainage Easement — A legal encumbrance that is placed against a property's title to reserve specified privileges for the users and beneficiaries of the drainage facilities contained within the boundaries of the easement.

Drainage, Soil — The removal of water from a soil.

Dry Pond — A facility that provides stormwater quantity control by containing excess runoff in a detention basin, then releasing the runoff at allowable levels.

Dry Vault/Tank — A facility that treats stormwater for water quantity control by detaining runoff in underground storage units and then releases reduced flows at established standards.

Emergency Spillway — A channel used to safely convey flood discharges in excess of the capacity of the principal outlet.

Energy Dissipater — Any means by which the total energy of flowing water is reduced. In stormwater design, they are usually mechanisms that reduce velocity prior to, or at, discharge from an outfall in order to prevent erosion. They include rock splash pads, drop manholes, concrete stilling basins or baffles, and check dams.

Enhancement — To raise ecological value, desirability, or attractiveness of an environment associated with surface water.

Erosion — The wearing away of the land surface by running water, wind, ice, or other geological agents, including such processes as gravitational creep. Also, detachment and movement of soil or rock fragments by water, wind, ice, or gravity. The following terms are used to describe different types of water erosion.

Erosion and Sediment Control — Any temporary or permanent measures taken to reduce erosion, control siltation and sedimentation, and ensure that sediment-laden water does not leave a site.

Erosion and Sediment Control Facility — A type of drainage facility designed to hold water for a period of time to allow sediment contained in the surface and stormwater runoff directed to the facility to settle out so as to improve the quality of the runoff.

Escarpment — A steep face or a ridge of high land.

Existing Site Conditions — The conditions (ground cover, slope, drainage patterns) of a site as they existed on the first day that the project entered the design phase. Projects which drain into a sensitive area designated by a federal, state, or local agency may be required to use undisturbed forest conditions for the purposes of calculating runoff characteristics instead of using existing site conditions.

Experimental Best Management Practice (BMP) — A BMP that has not been tested and evaluated by the Department of Ecology in collaboration with local governments and technical experts.

Flood Frequency — The frequency with which the flood of interest may be expected to occur at a site in any average interval of years. Frequency analysis defines the “n-year flood” as being the flood that will, over a long period of time, be equaled or exceeded on the average once every “n” years.

Flood Fringe — That portion of the floodplain outside of the floodway which is covered by floodwaters during the base flood. It is generally associated with standing water rather than rapidly flowing water.

Flood Peak — The highest value of the stage or discharge attained by a flood; thus, peak stage or peak discharge.

Flood Routing — An analytical technique used to compute the effects of system storage dynamics on the shape and movement of flow represented by a hydrograph.

Flood Stage — The stage at which overflow of the natural banks of a stream begins.

Floodway — The channel of the river or stream and those portions of the adjoining flood plains which are reasonably required to carry and discharge the base flood flow. The portions of the adjoining flood plains which are considered to be "reasonably required" is defined by flood hazard regulations.

Forebay — An easily maintained, extra storage area provided near an inlet of a BMP to trap incoming sediments before they accumulate in a pond or wetland BMP.

Freeboard — The vertical distance between the design water surface elevation and the elevation of the barrier which contains the water.

Frost-Heave — The upward movement of soil surface due to the expansion of water stored between particles in the first few feet of the soil profile as it freezes. May cause surface fracturing of asphalt or concrete.

Frequency of Storm (Design Storm Frequency) — The anticipated period in years that will elapse, based on average probability of storms in the design region, before a storm of a given intensity and/or total volume will recur; thus a 10-year storm can be expected to occur on the average once every 10 years. Sewers designed to handle flows which occur under such storm conditions would be expected to be surcharged by any storms of greater amount or intensity.

Functions (wetlands) — The ecological (physical, chemical, and biological) processes or attributes of a wetland without regard for their importance to society (see also Values). Wetland functions include food chain support, provision of ecosystem diversity and fish and wildlife habitat, flood flow alteration, ground water recharge and discharge, water quality improvement, and soil stabilization.

Gabion — A rectangular or cylindrical wire mesh cage filled with rock and used as a protecting agent, revetment, etc., against erosion. Soft gabions, often used in stream bank stabilization, are made of geotextiles filled with dirt, in between which cuttings are placed.

Gage — Device for registering precipitation, water level, discharge, velocity, pressure, temperature, etc.

Gaging Station — A selected section of a stream channel equipped with a gage, recorder, or other facilities for determining stream discharge.

Gauge — A measure of the thickness of metal; e.g., diameter of wire, wall thickness of steel pipe.

Ground Water Table — The free surface of the ground water, that surface subject to atmospheric pressure under the ground, generally rising and falling with the season, the rate of withdrawal, the rate of restoration, and other conditions. It is seldom static.

Gully — A channel caused by the concentrated flow of surface and stormwater runoff over unprotected erodible land.

Harmful Pollutant — A substance that has adverse effects to an organism including immediate death, chronic poisoning, impaired reproduction, cancer or other effects.

Heavy Metals — Metals of high specific gravity, present in municipal and industrial wastes, that pose long-term environmental hazards. Such metals include cadmium, chromium, cobalt, copper, lead, mercury, nickel, and zinc.

Hydrograph — A graph of runoff rate, inflow rate or discharge rate, past a specific point over time.

Hydrologic Soil Groups — A soil characteristic classification system defined by the U.S. Soil Conservation Service in which a soil may be categorized into one of four soil groups (A, B, C, or D) based upon infiltration rate and other properties.

Hydrology — The science of the behavior of water in the atmosphere, on the surface of the earth, and underground.

Hydroperiod — A seasonal occurrence of flooding and/or soil saturation; it encompasses depth, frequency, duration, and seasonal pattern of inundation.

Hyetograph — A graph of precipitation versus time.

Impervious Surface — A hard surface area which either prevents or retards the entry of water into the soil. Common impervious surfaces include roof tops, walkways, patios, driveways, parking lots or storage areas, concrete or asphalt paving, gravel roads, packed earthen materials, and oiled surfaces.

Infiltration — The downward movement of water from the surface to the subsoil.

Infiltration Facility (or system) — A drainage facility designed to use the hydrologic process of surface and stormwater runoff soaking into the ground, commonly referred to as a percolation, to dispose of surface and stormwater runoff.

Infiltration Pond — A facility that provides stormwater quantity control by containing excess runoff in a detention facility, then percolating that runoff into the surrounding soil.

Inlet — A form of connection between surface of the ground and a drain or sewer for the admission of surface and stormwater runoff.

Invert — The lowest point on the inside of a sewer or other conduit.

Invert Elevation — The vertical elevation of a pipe or orifice in a pond which defines the water level.

Isopluvial Map — A map with lines representing constant depth of total precipitation for a given return frequency.

Lag Time — The interval between the center of mass of the storm precipitation and the peak flow of the resultant runoff.

Land Disturbing Activity — Any activity that results in a change in the existing soil cover (both vegetative and nonvegetative) and/or the existing soil topography. Land disturbing activities include, but are not limited to demolition, construction, clearing, grading, filling and excavation.

Leachate — Liquid that has percolated through soil and contains substances in solution or suspension.

Leaching — Removal of the more soluble materials from the soil by percolating waters.

Level Spreader — A temporary BMP used to spread stormwater runoff uniformly over the ground surface as sheet flow. The purpose of level spreaders are to prevent concentrated, erosive flows from occurring. Level spreaders will commonly be used at the upsteam end of wider biofilters to ensure sheet flow into the biofilter.

Low Flow Channel — An incised or paved channel from inlet to outlet in a dry basin which is designed to carry low runoff flows and/or baseflow, directly to the outlet without detention.

Major Storm — A precipitation event that is larger than the typically largest rainfall for a year.

Manning's Equation — An equation used to predict the velocity of water flow in an open channel or pipelines:

$$V = 1.486R^{2/3}S^{1/2} / n$$

where:

V is the mean velocity of flow in feet per second

R is the hydraulic radius in feet

S is the slope of the energy gradient or, for assumed uniform flow, the slope of the channel in feet per foot; and

n is Manning's roughness coefficient of the channel lining.

Mass Wasting — The movement of large volumes of earth material downslope.

Mean Depth — Average depth; cross-sectional area of a stream or channel divided by its surface or top width.

Mean Velocity — The average velocity of a stream flowing in a channel or conduit at a given cross-section or in a given reach. It is equal to the discharge divided by the cross-sectional area of the reach.

Metals — Elements, such as mercury, lead, nickel, zinc and cadmium, that are of environmental concern because they do not degrade over time. Although many are necessary nutrients, they are sometimes magnified in the food chain, and they can be toxic to life in high enough concentrations. They are also referred to as heavy metals.

Mitigation — means, in the following order of preference:

1. Avoiding the impact altogether by not taking a certain action or part of an action;
2. Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts;
3. Rectifying the impact by repairing, rehabilitating or restoring the affected environment;
4. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and
5. Compensation for the impact by replacing, enhancing, or providing substitute resources or environments.

Monitor — To systematically and repeatedly measure something in order to track changes.

Monitoring — The collection of data by various methods for the purposes of understanding natural systems and features, evaluating the impacts of development proposals on such systems, and assessing the performance of mitigation measures imposed as conditions of development.

NGVD — National Geodetic Vertical Datum

National Pollutant Discharge Elimination System (NPDES) — The part of the federal Clean Water Act, which requires point source discharges to obtain permits. These permits are referred to as NPDES permits and, in Washington State, are administered by the Washington State Department of Ecology.

Native Growth Protection Easement (NGPE) — An easement granted for the protection of native vegetation within a sensitive area or its associated buffer. The NGPE shall be recorded on the appropriate documents of title and filed with the County Records Division.

Natural Location — The location of those channels, swales, and other nonmanmade conveyance systems as defined by the first documented topographic contours existing for the subject property, either from maps or photographs, or such other means as appropriate.

New Development — Includes the following activities: land disturbing activities, structural development, including construction, installation or expansion of a building or other structure; creation of impervious surfaces; Class IV — general forest practices that are conversions from timber land to other uses; and subdivision and short subdivision of land as defined in RCW 58.17.020. All other forest practices and commercial agriculture are not considered new development.

New Impervious Area — The impervious area that is being created by the project.

Nonpoint Source Pollution — Pollution that enters a water body from diffuse origins on the watershed and does not result from discernible, confined, or discrete conveyances.

Normal Depth — The depth of uniform flow. This is a unique depth of flow for any combination of channel characteristics and flow conditions. Normal depth is calculated using Manning's Equation.

Nutrients — Essential chemicals needed by plants or animals for growth. Excessive amounts of nutrients can lead to degradation of water quality and algal blooms. Some nutrients can be toxic at high concentrations.

Off-site — Any area lying upstream of the site that drains onto the site and any area lying downstream of the site to which the site drains.

Orifice — An opening with closed perimeter, usually sharp-edged, and of regular form in a plate, wall, or partition through which water may flow, generally used for the purpose of measurement or control of flow.

Outlet — Point of water disposal from a stream, river, lake, tidewater, or artificial drain.

Outlet Channel — A waterway constructed or altered primarily to carry water from man-made structures, such as terraces, tile lines, and diversions.

Overflow — A pipeline or conduit device, together with an outlet pipe, that provides for the discharge of portions of combined sewer flows into receiving waters or other points of disposal, after a regular device has allowed the portion of the flow which can be handled by interceptor sewer lines and pumping and treatment facilities to be carried by and to such water pollution control structures.

Overtopping — To flow over the limits of a containment or conveyance element.

Peak Discharge — The maximum instantaneous rate of flow during a storm, usually in reference to a specific design storm event.

Permeability Rate — The rate at which water will move through a saturated soil.

Permeable Soils — Soil materials with a sufficiently rapid infiltration rate so as to greatly reduce or eliminate surface and stormwater runoff. These soils are generally classified as SCS hydrologic soil types A and B.

Perviousness — Related to the size and continuity of void spaces in soils; related to a soil's infiltration rate.

Pesticide — A general term used to describe any substance — usually chemical — used to destroy or control organisms; includes herbicides, insecticides, algicides, fungicides, and others. Many of these substances are manufactured and are not naturally found in the environment. Others, such as pyrethrum, are natural toxins which are extracted from plants and animals.

Practicable — Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

Pretreatment — The removal of material such as gross solids, grit, grease, and scum from flows prior to physical, biological, or physical treatment processes to improve treatability. Pretreatment may include screening, grit removal, stormwater, and oil separators.

Puget Sound Basin — Puget Sound south of Admiralty Inlet (including Hood Canal and Saratoga Passage); the waters north to the Canadian Border, including portions of the Strait of Georgia; the Strait of Juan de Fuca south of the Canadian Border; and all the lands draining into these waters as mapped in Water Resources Inventory Areas numbers 1 through 19, set forth in WAC 173-500-040.

Rare, Threatened, or Endangered Species — Plant or animal species that are regionally relatively uncommon, are nearing endangered status, or whose existence is in immediate jeopardy and is usually restricted to highly specific habitats. Threatened and endangered species are officially listed by federal and state authorities, whereas rare species are unofficial species of concern that fit the above definitions.

Rational Method — A means of computing storm drainage flow rates (Q) by use of the formula Q = CIA, where C is a coefficient describing the physical drainage area, I is the rainfall intensity and A is the area.

Reach — A length of channel with uniform characteristics.

Receiving Waters — Bodies of water or surface water systems receiving water from upstream manmade (or natural) streams.

Recharge — The flow to ground water from the infiltration of surface and stormwater runoff.

Regional — An action (here, for stormwater management purposes) that involves more than one discrete property.

Regional Detention Facility — A stormwater quantity control structure designed to correct existing excess surface water runoff problems of a basin or subbasin. The area downstream has been previously identified as having existing or predicted significant and regional flooding and/or erosion problems.

This term is also used when a detention facility is used to detain stormwater runoff from a number of different businesses, developments or areas within a catchment. The use of regional detention facilities may be more efficient than on-site stormwater treatment although the preferred option is to include some on-site stormwater treatment through the use of grassy swales, etc., even when regional detention facilities are used.

Release Rate — The computed peak rate of surface and stormwater runoff for a particular design storm event and drainage area conditions.

Restoration — Actions performed to reestablish wetland functional characteristics and processes that have been lost by alterations, activities, or catastrophic events in an area that no longer meets the definition of a wetland.

Retention — The process of collecting and holding surface and stormwater runoff with no surface outflow.

Retention/Detention Facility (R/D) — A type of drainage facility designed either to hold water for a considerable length of time and then release it by evaporation, plant transpiration, and/or infiltration into the ground; or to hold surface and stormwater runoff for a short period of time and then release it to the surface and stormwater management system.

Retrofitting — The renovation of an existing structure or facility to meet changed conditions or to improve performance.

Return Interval — A statistical term for the average time of expected interval that an event of some kind will equal or exceed given conditions (e.g., a stormwater flow that occurs every 2 years).

Rill — A small intermittent watercourse with steep sides, usually only a few inches deep. Often rills are caused by an increase in surface water flow when soil is cleared of vegetation.

Riprap — A facing layer or protective mound of stones placed to prevent erosion or sloughing of a structure or embankment due to flow of surface and stormwater runoff.

Riparian — Pertaining to the banks of streams, wetlands, lakes or tidewater.

Riser — A vertical pipe extending from the bottom of a pond BMP that is used to control the discharge rate from a BMP for a specified design storm.

Rodenticide — A substance used to destroy rodents.

Runoff — Water originating from rainfall and other precipitation that is found in drainage facilities, rivers, streams, springs, seeps, ponds, lakes and wetlands as well as shallow ground water.

SBUH — Santa Barbara Urban Hydrograph Method. An event-based hydrographic method of analysis used to determine stormwater runoff from a site.

SCS — Soil Conservation Service, U.S. Department of Agriculture.

Sediment — Fragmented material that originates from weathering and erosion of rocks or unconsolidated deposits, and is transported by, suspended in, or deposited by water.

Sedimentation — The depositing or formation of sediment.

Settleable Solids — Those suspended solids in stormwater that separate by settling when the stormwater is held in a quiescent condition for a specified time.

Sheetflow — Runoff which flows over the ground surface as a thin, even layer, not concentrated in a channel.

Short Circuiting — The passage of runoff through a BMP in less than the design treatment time.

Siltation — The process by which a river, lake, or other water body becomes clogged with sediment. Silt can clog gravel beds and prevent successful salmon spawning.

Soil Group — A classification of soils by the Soil Conservation Service into four runoff potential groups. The groups range from A soils, which are very permeable and produce little or no runoff, to D soils, which are not very permeable and produce much more runoff.

Soil Permeability — The ease with which gases, liquids, or plant roots penetrate or pass through a layer of soil.

Soil Stabilization — The use of measures such as rock lining, vegetation or other engineering structures to prevent the movement of soil when loads are applied to the soil.

Source Control BMP — A BMP that is intended to prevent pollutants from entering stormwater. A few examples of source control BMPs are erosion control practices, maintenance of stormwater facilities, constructing roofs over storage and working areas, and directing wash water and similar discharges to the sanitary sewer or a dead end sump.

Spillway — A passage such as a paved apron or channel for surplus water over or around a dam or similar obstruction. An open or closed channel, or both, used to convey excess water from a reservoir. It may contain gates, either manually or automatically controlled, to regulate the discharge of excess water.

Steep Slope — Slopes of 40 percent gradient or steeper.

Storm Frequency — The time interval between major storms of predetermined intensity and volumes of runoff for which storm sewers and other structures are designed and constructed to handle hydraulically without surcharging and backflooding, e.g., a 2-year, 10-year or 100-year storm.

Stormwater — That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, channels or pipes into a defined surface water channel, or a constructed infiltration facility.

Stormwater Drainage System — Constructed and natural features which function together as a system to collect, convey, channel, hold, inhibit, retain, detain, infiltrate, divert, treat or filter stormwater.

Stormwater Facility — A constructed component of a stormwater drainage system, designed or constructed to perform a particular function, or multiple functions. Stormwater facilities include, but are not limited to, pipes, swales, ditches, culverts, street gutters, detention basins, retention basins, constructed wetlands, infiltration devices, catchbasins, oil/water separators, sediment basins and modular pavement.

Stormwater Quality — A term used to describe the chemical, physical, and biological characteristics of stormwater.

Stormwater Quantity — A term used to describe the volume characteristics of stormwater.

Stormwater Site Plan — A plan which shows the measures that will be taken during and after project construction to provide erosion and sediment control and stormwater control.

Stream Gaging — The quantitative determination of stream flow using gages, current meters, weirs, or other measuring instruments at selected locations. See gaging station.

Streams — Those areas where surface waters flow sufficiently to produce a defined channel or bed. A defined channel or bed is indicated by hydraulically sorted sediments or the removal of vegetative litter or loosely rooted vegetation by the action of moving water. The channel or bed need not contain water year-round.

Subbasin — A drainage area which drains to a water course or waterbody named and noted on common maps and which is contained within a basin.

Subgrade — A layer of stone or soil used as the underlying base for a BMP.

Suspended Solids — Organic or inorganic particles that are suspended in and carried by the water. The term includes sand, mud, and clay particles (and associated pollutants) as well as solids in stormwater.

Swale — A shallow drainage conveyance with relatively gentle side slopes, generally with flow depths less than one foot.

TESC — Temporary Erosion and Sediment Control (Plan).

Time of Concentration — The time period necessary for surface runoff to reach the outlet of a subbasin from the hydraulically most remote point in the tributary drainage area.

Toe of Slope — A point or line of slope in an excavation or cut where the lower surface changes to horizontal or meets the existing ground slope; or a point or line on the upper surface of a slope where it changes to horizontal or meets the original surface.

Topography — General term to include characteristics of the ground surface such as plains, hills, mountains; degree of relief, steepness of slopes, and other physiographic features.

Total Solids — The solids in water, sewage, or other liquids, including the dissolved, filterable, and nonfilterable solids. The residue left when the moisture is evaporated and the remainder is dried at a specified temperature, usually 130°C.

Total Suspended Solids — The entire amount of organic and inorganic particles dispersed in water.

Travel Time — The estimated time for surface water to flow between two points of interest.

Underdrain — Plastic pipes with holes drilled through the top, installed on the bottom of an infiltration BMP which are used to collect and remove excess runoff.

Unstable Slopes — Those sloping areas of land which have in the past exhibited, are currently exhibiting, or will likely in the future exhibit, mass movement of earth.

Urbanized Area — Areas designated and identified by the U.S. Bureau of Census according to the following criteria: an incorporated place and densely settled surrounding area that together have a maximum population of 50,000.

USEPA — The United States Environmental Protection Agency.

Vactor Waste — The waste material that is found in the bottom of a catch basin.

Values — Wetland processes or attributes that are valuable or beneficial to society (also see Functions). Wetland values include support of commercial and sport fish and wildlife species, protection of life and property from flooding, recreation, education, and aesthetic enhancement of human communities.

Vegetative Filter Strip — A facility that is designed to provide stormwater quality treatment of conventional pollutants but not nutrients through the process of biofiltration.

Water Quality BMP — A BMP specifically designed for pollutant removal.

Water Quality Design Storm — The 6-month recurrence interval 24-hour duration storm event.

Water Quality Standards — Minimum requirements of purity of water for various uses; for example, water for agricultural use in irrigation systems should not exceed specific levels of sodium bicarbonate, pH, total dissolved salts, etc. In Washington, the Department of Ecology sets water quality standards.

Water Quantity BMP — A BMP specifically designed to reduce the peak rate of stormwater runoff.

Wetlands — Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. This includes wetlands created, restored or enhanced as part of a mitigation procedure. This does not include constructed wetlands or the following surface waters of the state intentionally constructed from sites that are not wetlands: irrigation and drainage ditches, grass-lined swales, canals, agricultural detention facilities, farm ponds, and landscape amenities.

Wet Pond — A facility that treats stormwater for water quality by utilizing a permanent pool of water to remove conventional pollutants from runoff through sedimentation, biological uptake, and plant filtration.

Wet Vaults/Tanks — Underground storage facilities that treat stormwater for water quality through the use of a permanent pool of water that acts as a settling basin.

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